[0029] Figs. 8A-8F illustrate a hierarchical topology for exchanging data between sending devices and receiving devices in accordance with an embodiment of the present invention.

[0030] Figs. 9A-9C illustrate data exchange via a network between a sending device and receiving devices in accordance with an embodiment of the present invention.

[0031] Fig. 10 is a detailed diagram of a receiving device in communication with a sending device in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0032] In the following description of the various embodiments, reference is made to the accompanying drawings, which form a part hereof, and in which is shown by way of illustration various embodiments in which the invention may be practiced.

[0033] Figure 1 is a system architecture for multicast data transport in accordance with an embodiment of the present invention. In Fig. 1, the system includes a sending device or sender 1, two IP networks 2, 3 and receiving devices or receivers 5 located within one of the networks 3. The sending device 1 is an server, IP-based device, DVB device, GPRS device or similar device that uses an ALC mechanism for sending multicast data packets.

[0034] The ALC mechanism requires LCT, FEC, layered congestion control and security building blocks (not shown). Information in ALC is carried in a session that is characterized by a set of groups/port numbers. Data is transferred as objects. For instance, a file, a JPEG image, a file slice are all objects. A single session may include the transmission of a single object or multiple objects. By way of example, each session is uniquely identified by the IP